

# UPD007A

## Band 7 UPD Series Duplexer

### Features

- Low Loss with High Rejection
- Superior power handling and reliability
- Universal footprint across all FDD frequency bands

### Applications

- Wireless Infrastructure applications
- High-performance carrier-grade Pico-cells using linearized PA for 0.25-0.5W and linear PA to 1.0W at the antenna port.
- Wide-band femto-cells or pico-cells requiring multi-channel or carrier aggregation.



Part Dimensions: 39.9 × 5.4 × 5.9 mm • 4.9 g  
Materials: Ag plated ceramic block with tin plated brass shield

### Description

Surface mount ceramic duplexer supports a universal footprint across all FDD frequency bands enabling the use of a common system PCB. Provides superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other duplexer technologies.

### Electrical Specifications

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	3.0 Watt max
Peak Input Power	-	-	-	30 Watt max

#### Antenna to UL Response

Passband Insertion Loss (5 MHz avg)	2500-2570	2.3 dB	2.5 dB max	2.7 dB max
Passband Return Loss	2500-2570	14 dB	12 dB min	12 dB min
Attenuation:	2620-2690	56 dB	55 dB min	55 dB min

#### DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	2620-2690	2.3 dB	2.5 dB max	2.7 dB max
Passband Return Loss	2620-2690	14 dB	12 dB min	12 dB min
Attenuation:	2500-2570	65 dB	63 dB min	63 dB min
	1-2500	60 dB	43 dB min	43 dB min
	2720-2790	24 dB	22 dB min	22 dB min

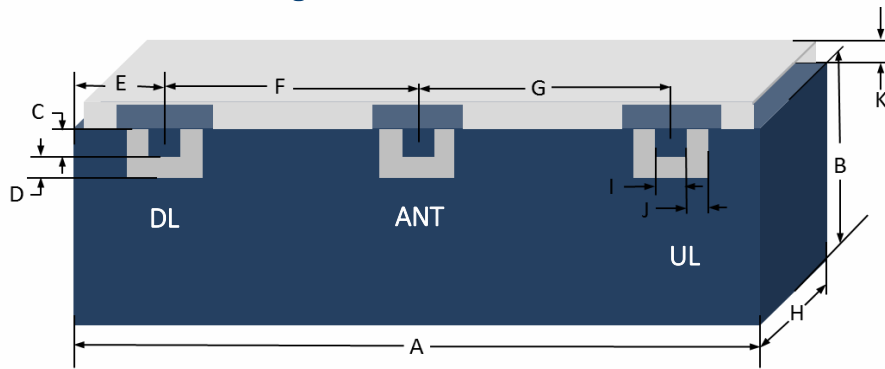
#### DL to UL Response

Attenuation for UL band	2500-2570	65 dB	63 dB min	63 dB min
Attenuation for DL band	2620-2690	58 dB	56 dB min	56 dB min

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

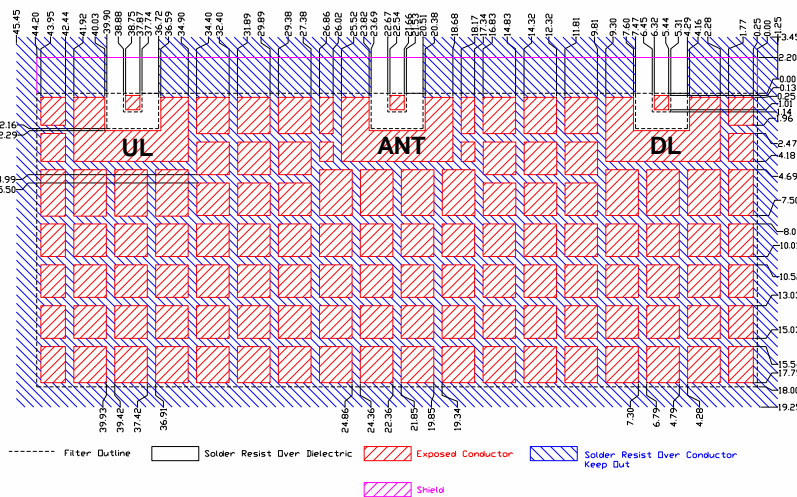
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

### Mechanical Drawing

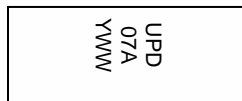


Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	39.90	0.30
B	4.02	0.30
C	1.10	0.13
D	1.00	0.13
E	3.73	0.20
F	16.22	0.13
G	16.22	0.13
H	5.86	0.20
I	1.00	0.13
J	1.10	0.13
K	1.40	0.20

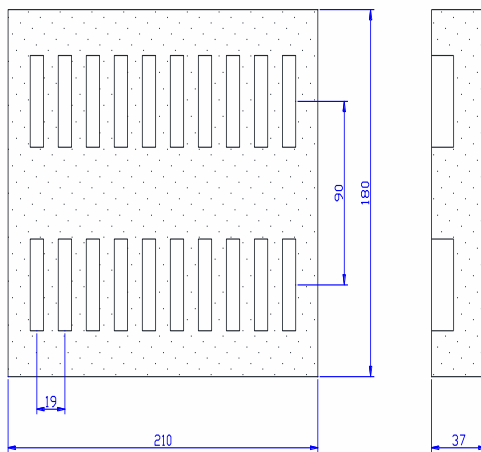
### PCB Layout



### Packaging and Marking



Product is shipped in Pre-formed foam trays



The trays have 20 slots each with one filter per slot. Boxes are packed with 12 Trays per box for a total of 240 filters per box.

### Electrical Response

